Guidelines for Planting

Right Tree, Right Place

in Arizona

A homeowner's guide to choosing and planting trees for a lifetime of beauty, safety and energy efficiency.

Arizona Community Tree Council, Inc.

www.aztrees.org

APS

www.aps.com

ISA

International Society of Arboriculture

www.treesaregood.com

APS takes pride in providing you and your neighbors with safe, reliable electric service. However, trees that grow into our power lines threaten our ability to provide this service. In fact, trees are the number one cause of power outages. APS developed this brochure as part of our commitment to reliable service, energy efficiency and the tree planting efforts in communities we serve. We encourage you to plant the right tree in the right place. APS hopes this information will help you do this safely.

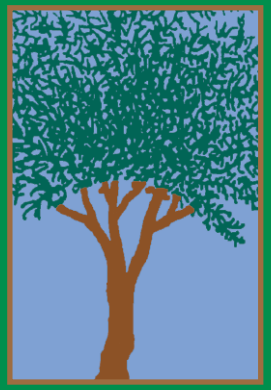
FACT:

TREES BENEFIT THE ENVIRONMENT, PEOPLE AND PLACES

For additional information on the benefits of trees, visit the web site of The Center for Urban Forest Research USDA Forest Service at www.cufr.ucdavis.edu

Quality of Life Improves with Trees

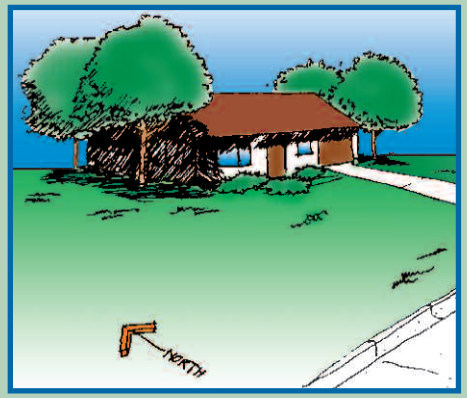
Trees improve quality of life by:



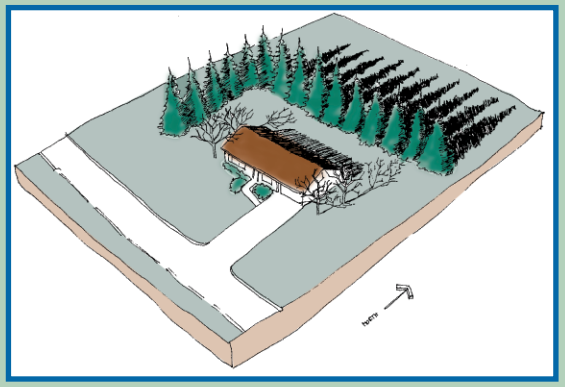
- Saving Energy
  - Trees reduce summer temperatures
  - Trees increase home energy efficiency
  - Windbreaks reduce heat loss
  - Trees can save on heating and cooling costs
- Reducing Atmospheric Carbon Dioxide
- Improving Air Quality
- Reducing Storm Water Runoff and Erosion
- Aesthetics and Other Benefits
  - Beautification
  - Consumers prefer retail settings with trees
  - Outdoor public spaces are used more and contribute to reduced levels of domestic violence
  - Property values increase
  - Social and psychological benefits
  - Human health benefits
  - Stress reduction
  - Wildlife
  - Jobs and environmental education
  - Shade can defer street maintenance

Right Tree, Right Place

Energy Conservation



- Locate trees to provide summer shade to west and east windows.
- Plant trees to provide summer shade for patios, driveways and air conditioners.
- Use deciduous trees on the south side of buildings as the bare branches of these solar-friendly trees allow the most winter sunlight to filter through.
- Plant windbreaks for heating savings - Evergreens are preferred over deciduous trees for windbreaks because they serve to mitigate the effects of wind year round.

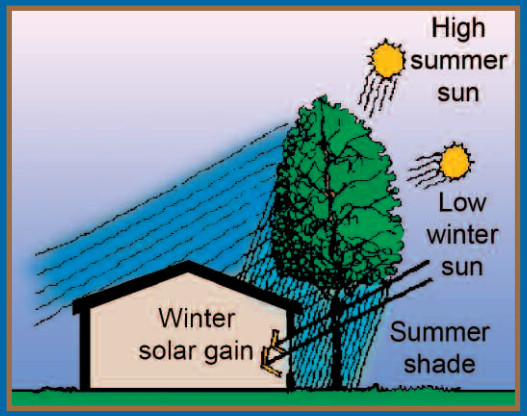


Right Tree, Right Place
Tree Selection Process

Be aware of mature tree size - height and width

- Keep trees at least 5-10 ft. from buildings
- Roots can damage foundations
- Branches can make it difficult to maintain exterior walls and windows
- Trees within 15 feet of a power line should grow no more than 20 feet tall.
- Trees 20 to 50 feet from a power line should not grow more than 40 feet tall.
- Trees growing taller than 40 feet should be planted more than 50 feet from the power lines.
- Don't forget to check for underground utilities when you dig the hole to plant your tree.

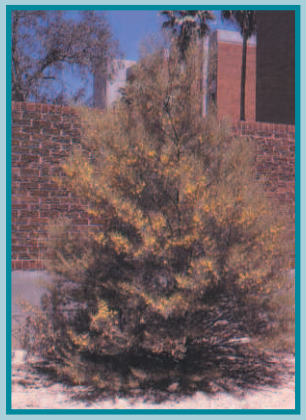
- Avoid hazards and injuries
- Prevent damages and interruption of utility services
- Save time and money, eliminate construction delays
- Comply with state law!



Here is a sampling of the trees that APS recommends for planting near power lines throughout the state of Arizona:

Amur Maple
(4,000+ ft. elevation)
Acer ginnala

Mulga
(4,000+ ft. elevation)
Acacia aneura



Cascalote (no photo)
Caesalpinia cacalaco

Little Leaf or Foothill Palo Verde (no photo)
Parkinsonia microphylla

Mexican Redbud (no photo)
Cercis mexicana

Texas Redbud (no photo)
Cercis canadensis var. texensis

Desert Sweet Acacia
Acacia smallii A. minuta

Palo Brea or Sonoran Palo Verde
Parkinsonia praecox

Desert Willow
Chilopsis linearis

English Hawthorn
Crataegus oxyacantha var. monogyna

Coral (Goldfields) Gum
Eucalyptus torquata

Desert Fern or Feather Bush
Lysiloma microphylla var. thornberi

Crabapple
(4,000+ ft. elevation)
Malus spp.

Mayday Tree or Bird Cherry
(4,000+ ft. elevation)
Prunus padus

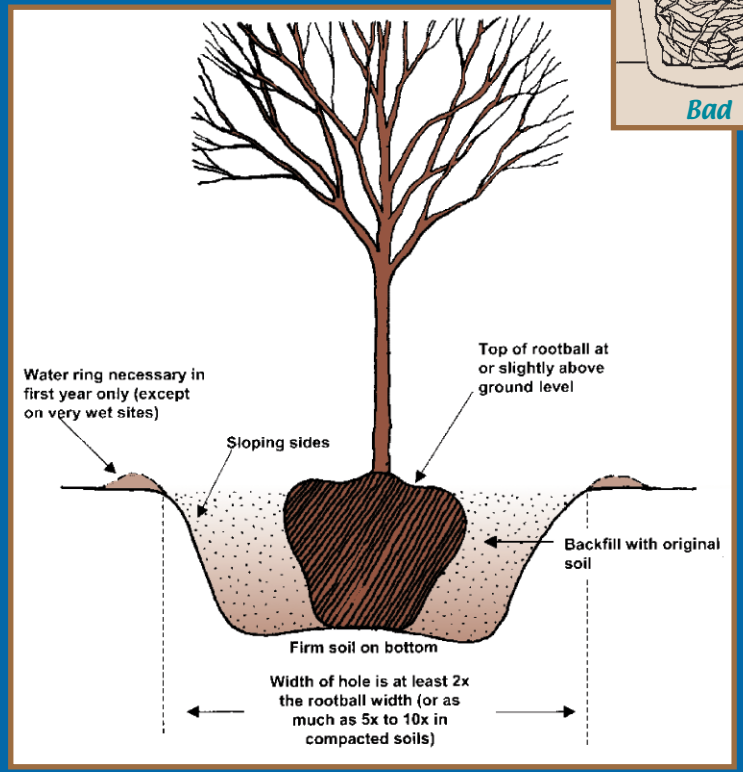
Texas Mountain Laurel or Mescal Bean
Sophora secundiflora

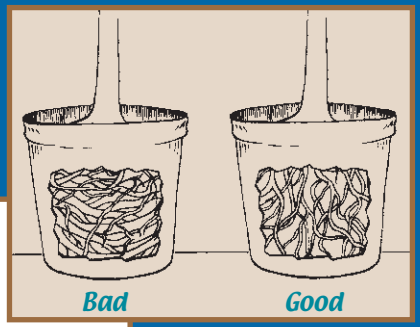
Monk's Pepper or Chaste Tree
Vitex agnus-castus

Right Care

Root ball critical to survival

Roots should penetrate to the edge of the root ball, but not densely circle the inside of the container or grow through drain holes. If the tree has many roots circling around the outside of the root ball or the root ball is very hard it is said to be pot-bound. The mass of circling roots can act as a physical barrier to root penetration into the surrounding soil after planting. Dense surface roots that circle the trunk may girdle the tree. Do not purchase pot-bound trees.





Container Stock

Roots should not twist or circle in the container. Remove the root ball from the container. Inspect the exposed larger roots carefully to see if they are twisting or turning in circles. Circling roots often girdle and kill other roots. If only a few roots are circling, cut them away with a sharp tool.

A good tree is well anchored

Another way to evaluate the quality of the tree before planting is to gently move the trunk back and forth. A good tree trunk bends and does not move in the soil, while a poor quality trunk bends little and pivots at or below the soil line—a telltale sign indicating a poorly anchored tree.

Plant the tree in a quality hole

Dig the planting hole one inch shallower than the depth of the root ball to allow for some settling after it is watered in. The crown of the root ball should be slightly above ground level. Make the hole two to three times as wide as the root ball and roughen the sides of the hole to make it easier for roots to penetrate. Backfill with the native soil unless it is very rocky or sandy, in which case you may want to add composted organic matter such as peat moss or shredded bark

Mulch and water

Use the extra backfill to build a berm outside the root ball to the drip line. Soak the tree, and gently rock it to settle it in. Cover the basin with a 4-inch (10 cm) thick layer of mulch, but avoid placing mulch against the tree trunk.

Water the new tree three times a week until it is established. Thereafter, refer to specific watering guidelines for your area.

Don't forget about the tree

Schedule regular inspections of your tree several times a year by an ISA Certified Arborist before problems develop. If your tree needed staking to keep it upright, remove the stakes and ties within one year of planting, or sooner if the tree can hold itself up. If after one year the tree is unable to stand on its own, remove and replace it. Reapply mulch and irrigate the tree as needed. Leave lower side branches on young trees for the first year. Prune the young tree to maintain a central leader and equally spaced scaffold branches. As the tree matures, have it pruned on a regular basis by an ISA Certified Arborist.

For further information related to tree care, please see the International Society of Arboriculture website: www.treesaregood.org

Right Call

Call the Blue Stake Center at least two working days before you dig!

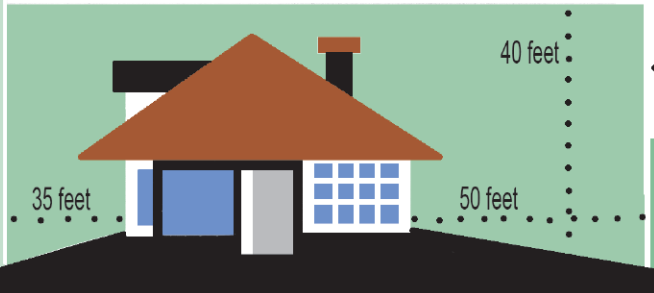
1-800-782-5348

Trees growing into power lines:

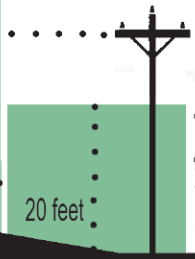
- Are the number one cause of power outages.
- Can create a safety hazard for you and your family.

Trees that grow 60 feet in height.
Use large types of trees here, but plant them at least 35 feet away from the house.

Trees that grow no taller than 40 feet.
This zone is used to decorate or frame your house. Select trees first then plant shrubs to complement the trees.



Your cooperation in planting tall-growing trees away from electric utility lines will help assure greater public safety to you and your community. Tall-growing trees planted within utility rights-of-way will require your electric utility to prune or remove trees to maintain proper clearance from overhead electric lines. Pruning may result in the tree having an unnatural appearance.



Trees that grow no more than 20 feet
This zone ends 15 feet away from electric utility wires.

Look before planting. Do not plant trees that grow taller than 20 feet when mature within 15 feet of electric lines.

Trees and utility lines contend for overhead space along our streets.

Our goal is to allow trees and power lines to coexist

through careful pruning of existing trees and

by encouraging residents to plant trees that won't

grow into the lines when mature.

Arizona Community Tree Council, Inc.

www.aztrees.org

www.aps.com

International Society of Arboriculture

www.treesaregood.com

Printed by

BEAR Industries, Printing & Publishing, Reno, NV, (775) 358-8822 , (800) 766-6755

Design & Production Art by

Lisa Roth, Visionpoint Graphic Design, Chandler, AZ, (480) 821-1177, visionpoint@msn.com

Production Coordination by

Doreen Orist, Urban Environmental Enterprises, Inc., Chandler, AZ, (480) 899-9831

Publication Contributors:

Mike Neal, Arizona Public Service
Jim Skiera, International Society of Arboriculture, Inc.
Ron Romatzke, Arizona State Land Department
Tina McKeand, Arizona Community Tree Council, Inc.
Jim Gieger, Center for Urban Forest Research, Pacific Southwest Research Station, USDA Forest Service
Doreen Orist, Urban Environmental Enterprises, Inc.

Copy Editors:

John Eisenhower, Arizona Community Tree Council, Inc.
Steve Priebe, City of Phoenix
Ron Orist, Urban Environmenatal Enterprises, Inc.